

PRELIMINARY NOTE ON ENTOVALVA SEMPERI SP. NOV.,
A COMMENSAL BIVALVE LIVING ATTACHED TO
THE BODY OF A SYNAPTID¹

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ONE PLATE

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Entovalva semperi sp. nov.

Diagnosis:—Body ovoid, more or less compressed laterally, attaining 10–12 mm in length; wholly enclosed in mantle, which carries no papillæ on its surface. There are only two orifices of the mantle, the larger anterior (pedal) and the minute posterior (siphonal); through the former protrudes the foot. Shell internal, thin and symmetrical, 7 mm long and 5 mm high, destitute of any tooth, but with a distinct prodissoconch and internal ligament. Foot thin and flat, expanding horizontally to form a spade-shaped creeping sole; it may measure 12 × 10 mm when fully extended. Byssogenous organ, opening near the posterior margin of the sole, is capable of producing byssus at least while young, but probably not functioning as adhesive organ in adult. Anterior and posterior adductor muscles and two pairs of foot retractors present, but all are rather weakly developed. Gill single, of trellis-work of rectangular meshes; the outer lamella forms the septum to divide infra- and suprabranchial chambers. Labial palps two. Stomach with several openings from hepatic lobes and a big pyloric caecum directed ventrad on the right side. Ventricle of heart traversed by rectum. Three pairs of nerve ganglia and their commissures in the ordinary arrange-

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ment; no special sense organ present. Both gonoduct and excretory duct open into suprabranchial chamber, which serves, in adult individual, also as brood-chamber. Hermaphroditism not yet clearly demonstrated. Colour whitish, with dark brown intestinal contents seen through the translucent body-wall.

The animal lives a commensal life adhering to the skin of the Synaptid, *Protankyra bidentata* (Woodward et Barrett), usually at its anterior one-fourth or one-third. Locality: Tomioka, Amakusa, Kyushu.

Only two species have hitherto been described for the genus *Entovalva*, namely *E. mirabilis* Voeltzkow from *Leptosynapta ooplax* von Marenzeller, of Zanzibar, and *E. perrieri* (Malard) from *L. inhaerens* (O. F. Müller) of Manche, France. The present species differs from *mirabilis* in the shape of the foot and in the mode of living, while from *perrieri*, in having the entirely internal valves and in absence of papillæ on the mantle, and of byssal papilla.

I hesitate to accept the genus *Devonia* recently proposed by Winckworth to include *perrieri*, because my new species stands about midway between these two. I would rather retain the genus *Entovalva*, for the present, to include all these three, because our anatomical knowledge of the other species is so deficient that any detailed comparison of them is very difficult.

The present species may be identical with, or at least very closely allied to, that unnamed Philippine form found associated with *Protankyra similis*, and only very briefly mentioned by Semper. The internal valves and the creeping foot are the features most characteristically common in the two.

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